Algebra 2 Name_____

Sequence 6 WS: Recursive Sequences

Find the first four terms in each sequence.

1) $a_n = a_{n-1} \cdot 3$
$a_1 = 3$

2) $a_n = a_{n-1} \cdot 5$
$a_1 = -0.4$

3) $a_n = a_{n-1} \cdot 3$
$a_1 = -4$

4) $a_n = a_{n-1} \cdot 2$
$a_1 = 4$

5) $a_n = a_{n-1} \cdot 3$
$a_1 = 1$

6) $a_n = a_{n-1} \cdot 4$
$a_1 = 1.25$

7) $a_n = a_{n-1} \cdot 2$
$a_1 = 2$

8) $a_n = a_{n-1} \cdot 2$
$a_1 = 3$

Write the recursive formula for each sequence.

9) 25, 31, 37, 43, 49, ...

10) −28, −24, −20, −16, −12, ...

11) 29, 22, 15, 8, 1, ...

12) −4, −12, −36, −108, −324, ...

13) 4, 24, 144, 864, 5184, ...

14) −4, −8, −16, −32, −64, ...

15) $-2,\ -\frac{3}{2},\ -1,\ -\frac{1}{2},\ 0, \ldots$

16) −14, −5, 4, 13, 22, ...

17) 2, 8, 32, 128, 512, ...

18) 1, 2, 6, 24, 120, ...